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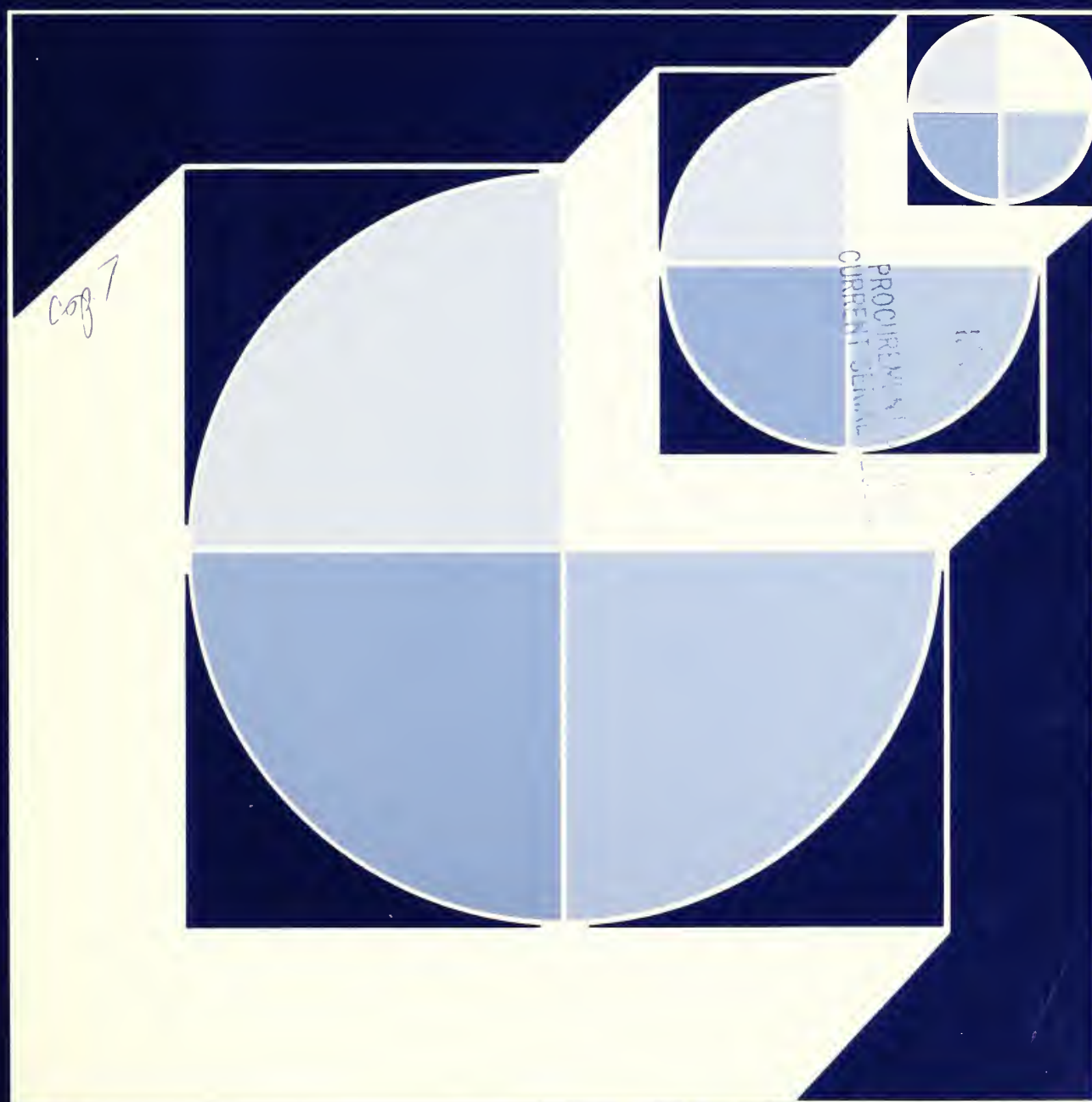
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Vol. 1 #3

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To Our Readers:

If you're familiar with **Family Economics Review**, you'll notice a change in format with this issue. Our new look reflects the first stages of **Family Economics Review's** conversion to desktop publishing.

We also are beginning a new volume and number format, which will make bibliographic entries simpler and in conformance with similar periodicals.

Major articles in this issue of **Family Economics Review** are based on the Consumer Expenditure Survey conducted by the Bureau of Labor Statistics, U.S. Department of Labor. The Bureau is changing the abbreviation for the Survey from CES to CEX to avoid conflict with other major surveys. Reference to the Survey in future issues of **Family Economics Review** will reflect this change.

Joan C. Courtless
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August 1988

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Methodological Issues for Today and Tomorrow¹

By Thesia I. Garner

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The Consumer Expenditure Survey (CES) data are a collection of detailed consumer expenditures, income, and consumer unit characteristics. The data set is a rich source of information available to researchers to conduct economic analysis. Historically, the survey was important primarily because of its role in the periodic revision of the Consumer Price Index. However, with increasing demand for more timely data concerning the spending habits of different types of households, the CES has gained importance as a source of information.

A Brief History of the Survey

The Bureau of Labor Statistics (BLS) has been conducting expenditure surveys since the late 19th century. The first survey, conducted in 1888-91, provided U.S. Government policy makers with cost-of-living data for American wage earners. This survey emphasized the worker's role as producer rather than as consumer. Information from this survey was used for tariff negotiations between the United States and European countries.

In response to rapid price changes occurring at the turn of the century and during the first World War, expenditure surveys were conducted again in 1901 and 1917-19. These surveys provided information on the effects of rising prices on the living

conditions of urban wage earners and clerical workers.

The use of consumer surveys extended from the study of the welfare of selected groups to more general economic analysis during the economic depression of the 1930's. The BLS conducted its own investigation and cooperated with other Federal agencies during the 1934-36 period to collect data on consumer purchases. These data permitted more extensive analysis of the income and expenditure behavior of American families, revision of the cost-of-living index (now known as the Consumer Price Index), and the selection of a new list of items to be priced in the index.

The survey methodology used to collect expenditure and household characteristics data became increasingly more sophisticated beginning in the early forties. In 1941-42, for the first time, the entire sample population to be surveyed was chosen using scientific sampling methods. The 1941-42 expenditure survey was a cooperative effort of BLS and the U.S. Department of Agriculture. This was the first nationwide survey from which data could be used to estimate national consumption expenditures and savings classified by income class.

Approximately 10 years later, in 1950, an expenditure survey of the civilian noninstitutional population living in urban areas was conducted. The 1950 survey provided data for the CPI and for analyses of consumption patterns.

The 1960-61 Survey of Consumer Expenditures followed an extensive testing of the latest collection and processing methodology and, thus,

was the most ambitious survey to date. As in the past, a major justification for the survey was to support a revision of the CPI. However, the growing interest of market researchers, government officials, and other private users interested in current detailed consumer expenditure and income information had an effect on the scope and coverage of the survey. The sample included urban and rural families and single consumers. Two different questionnaires were used to obtain data. Annual recall schedules, administered by interviewers, were used to collect all information on income, savings, and expenditures, with the exception of food detail and related purchases. Information on these latter categories was collected by the interviewers using a supplementary 7-day recall questionnaire. The reference period for these purchases was the week preceding the interview.

The next major survey effort was conducted in 1972-73. The survey provided continuity with the content of the Bureau's previous expenditure surveys; however, it departed in its collection techniques. Data were collected using two separate components--a Quarterly Interview Panel Survey and a Diary. Also, unlike previous surveys, the Bureau of the Census, under contract with BLS, conducted all sample selection and field work. A third major change was the switch from an annual recall to a quarterly recall (Interview) and a daily recall (Diary) of expenditures. The new format and procedures were adopted based on extensive collection methodology studies.

Current Surveys

The rapidly changing economic conditions of the 1970's intensified the need for more timely data than could be supplied by surveys conducted every 10 to 12 years. The new continuing Survey, initiated in 1979, extended the BLS tradition of providing data describing the consumption behavior of American families. Because of the ongoing

¹ This article is condensed from a paper presented at the Annual Agricultural Outlook Conference, December 1987, Washington, DC.

² This paper does not represent an official position of the U.S. Department of Labor, Bureau of Labor Statistics..

nature of the Survey, data are now released in published form at the annual level; quarterly data will be published beginning in July 1988.

As with the previous survey, the collection of data for the continuing CES is conducted by the Bureau of the Census. The data are collected from a national probability sample of "households" designed to represent the total civilian noninstitutional population (and a portion of the institutional population). The objectives of the survey remain the same, "to provide the basis for revising the weights and associated pricing samples for the CPI and to meet the need for timely and detailed information on consumption patterns of different kinds of families."

The ongoing Survey also is composed of two components, the Interview and the Diary, each with its own questionnaire and sample. The unit from which the data are collected is the consumer unit (CU). A consumer unit is defined as (1) all members of a particular housing unit who are related by blood, marriage, adoption, or some other legal arrangement, such as foster children; (2) a person living alone or sharing a household with others, or living as a roomer in a private home, lodging house, or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who pool their income to make joint expenditure decisions. *In the ongoing Survey, students living in university-sponsored housing are included in the sample as separate CU's. This is in contrast to the 1972-73 survey, in which these students were considered as a part of their parents' CU's.*

Using the Interview component, approximately 5,000 CU's are interviewed once each quarter for five consecutive quarters. After the fifth interview, the consumer unit is dropped from the Survey and is replaced by a new CU. For the Survey as a whole, 20% of the sample is dropped and a new group is added each quarter. Because the sample has this rotating design feature, with

families rotated into and out of the sample, the Survey is continuous. The Interview is designed to collect data on relatively large or major expenditure items and for expenditures that occur at fairly regular intervals (e.g., housing, rent, utility bills, and clothing). Information is also collected on the sociodemographic characteristics of CU's, their income, assets, and liabilities. The Interview collects detailed data on an estimated 60% to 70% of total expenditures; an additional 20% to 25% are accounted for using global questions for food and other selected items. The Survey takes an average of 90 to 120 minutes to complete. The response rate of eligible housing units for 1986 was 86%.

Another sample of approximately 5,000 CU's are surveyed for the Diary annually. For this Survey, respondents are requested to record a detailed description of all expenses for two consecutive 1-week periods. The Diary Survey is divided by day of purchase and by broad classification of goods and services. The categories include food and beverages both at home and in eating places, housekeeping supplies and services, nonprescription drugs, and personal care products and services. The Diary Survey is not limited to these types of expenditures but includes all expenses that the consumer unit incurs during the survey week. Expenses incurred by family members while away from home overnight are excluded. Again, data are collected on CU characteristics and income. The Diary takes approximately 90 to 105 minutes each week to complete. It has been estimated that it takes the interviewer an average of 20 minutes to collect the demographic data and to instruct the respondent on how to keep the Diary during the initial visit. The response rate of eligible housing units for 1986 was 90%.

The sociodemographic information collected in the Interview and Diary Surveys is used by the BLS to classify CU's for the publication of statistical tables and for economic analysis. Data on CU characteristics

will be used to integrate expenditure data from the Interview and Diary Surveys to provide a "full profile" of consumer expenditures by demographic characteristics. Integrated data are expected to be released in the fall of 1988.

Uses of CES Data

Uses of the CES data are extensive. These include analyses of consumer behavior, adjustment of weights and item selection for the CPI market basket, policy impact evaluations, marketing research, input into the National Account estimates, and forecasting. Government and private agencies use the data to study the welfare of particular segments of the population, such as the elderly, low-income families, urban and rural families, and those receiving food stamps. The Family Economics Research Group, of the USDA, uses the data to construct their cost-of-raising-a-child estimates. Econometricians find the data useful in constructing economic models.

CES data are available through various sources. Those produced by the BLS include news releases and bulletins, public use computer tapes, floppy disks, detailed computer printouts, *Monthly Labor Review* articles, working papers, and conference papers.

BLS research using the CES data can be divided into two broad categories—economic analysis and survey research methodology.

Economic analysis

Economic studies focus on enhancing methods of using the CES data (1) to construct index numbers to evaluate economic performance, and (2) to estimate the parameters of econometric models that may be useful in policy analysis. Index number research includes studies of price indexes for demographic subgroups and interarea price indexes. Research in econometric modeling includes demand analysis, the econometrics of panel data, and

studies of the distribution of consumption expenditures.

Demand analysis. There are several household demand studies in which data from the continuing CES have been used. These focus on quantity aggregation and price variation in consumer demand for food, estimation of income elasticity of expenditures for food, individual consumption of clothing within the household, omission bias in the estimation of household durable goods expenditures, expenditure patterns of single men and women, an economic perspective of gift-giving behavior, and housing structure attributes and tenure status.

Statistical and econometric studies have been conducted to provide additional information concerning the quality of the data from the economist's perspective and to develop approaches that can be used to improve demand model specification. Quality studies include an evaluation of the food quantity data from the Diary and an analysis of the reporting of income using data from the Interview. Among the techniques developed to improve model specifications for use with the CES data are the development of (1) grouping tests for regression misspecification, and (2) diagnostic tools applicable to regressions estimated with panel data or cross-sectional data drawn from a population with a grouped structure.

Econometrics of panel data. Given the sample and questionnaire designs, there are up to five observations for each consumer unit in the sample. This was also true for the 1972-73 Survey; however, with the rotating panel design, the survey period no longer coincides with the calendar year. Thus, examining the CES data in a panel framework becomes a potentially desirable option for many researchers using the quarterly data. Thus far, research in this area has focused on the autocovariance of aggregate expenditure share estimates over time.

Distribution of consumption expenditures. In the examination of consumption expenditures across

demographic subgroups of the population, two types of studies are being conducted—those in which mean expenditures and aggregate shares of expenditures are examined, and those in which concentrations of expenditures are the focus. The former studies include an examination of expenditures for goods versus services, and comparisons of the consumption patterns of the elderly versus the non-elderly, rural versus urban consumer units, and Hispanic versus non-Hispanic consumer units. Recent research from the second type of study focuses on the inequality in consumption expenditures using the Gini index.³

Survey methodology

The second major category of research on the CES being conducted within BLS is in the area of survey methodology, specifically (1) survey methods and management, and (2) statistical methodology. The overall purpose of this research is to improve the measurement of the variables used in economic analyses.

Survey methods and management. Over the years, the BLS has introduced improvements in the CES methodology to produce comprehensive data sets on consumer expenditures and income. With the continuing Survey, changes in survey methodology were introduced. These changes can have important implications for researchers using the CES data, especially when comparing results from the continuing CES to the earlier 1972-73 survey. The primary changes can be grouped, based on the scope of the change, into the following four categories: Overall design, definitions, Interview-specific changes, and Diary-specific changes.

Overall, the two surveys differ in terms of timeframe, sample design, variance estimation, and weighting. One of the most important methodological differences is the

change in timeframe. As noted previously, the current Survey is continuous. Balanced repeated replication is used to estimate variances. A new weighting methodology, generalized least squares (GLS) weighting, is being used to produce published estimates. GLS weighting is used to narrow discrepancies between the Diary and Interview components of the Survey on estimates of the number of CU's in a variety of CU categories. GLS weights are available on the public use tapes for the 1984 data and forward.

Four definitional changes were introduced with the continuing Survey that can potentially influence the results and conclusions of researchers using the CES data. *Definitions of the population, consumer unit, reference person, and complete income reporters have all changed in some way.* As noted earlier, the population has been redefined to include college students as separate consumer units when they live in college- or university-related housing. *By including students in the population sample as separate CU's, results from any analysis concerning single CU's will be affected.*

There are five primary differences in survey methodology that are Interview specific. These include the introduction of a panel-rotation sample design, a different target sample size, a change in reference periods, different procedures to deal with changes in consumer units or sample address composition, and a different procedure to determine which consumer units are included in the CES data base. The introduction of the panel-rotation sample design has implications for researchers interested in conducting longitudinal analysis because of the overlap of successive cross-sections of data.

The primary changes in the Diary for the continuing Survey were a change in the target sample size and a forms redesign. For the earlier survey, items were listed in the Diary in line-specific blocks. Line-block specificity was eliminated for the continuing Survey. Research is being

³ The Gini index, which measure inequality of income distributions, takes the value of zero for no inequality and one for total inequality.

conducted within the Bureau to determine which forms design produces better estimates.

Since the continuing Survey was initiated, additional changes have been implemented. Due to budgetary limitations in 1981, *only urban CU's were included in the CES sample for calendar quarter four in 1981 through August 1983 for the Interview and through November for the Diary. The total population, urban and rural CU's, has been surveyed since these times. A new sample design, based on the 1980 census rather than the 1970 census, was instituted in 1986. The new design reflects changes in primary sampling units (geographic areas) from which the sample is drawn. The new design was introduced in February 1986 for the Interview and January 1986 for the Diary. Public use tapes for the quarter one Interview will contain data collected using the previous sample design as well as the new sample design.*

Minor changes in the survey instruments and data codes have resulted due to the changes in recorded expenditure patterns of CU's and to refinements in expenditure item definitions. For example, additions to the Diary and Interview include specific reference to video games (hardware and software), computers for nonbusiness use, and telephone answering devices. Specific reference to the rental of video cassettes, tapes, and discs has also been added to the Interview and corresponding data base. Additional changes in survey questions are expected as expenditure patterns change to reflect changes in tastes and preferences, and as procedures for collecting CES data improve.

Statistical methodology research. The Bureau of Labor Statistics is investigating ways to improve the measurement of CES variables. Through the years, several topics for study have been identified to meet this goal. These include the following:

1. *Differential effects of recall length bias and telescoping for the Interview Survey.*

Recall bias and telescoping have been identified as potential concerns in data collection for the Interview. Recall bias results from the selective recollection of past events and is common in retrospective interviews. It is related to memory and tends to increase with longer recall periods and for less salient events. The incorrect reporting of events' time of occurrence, or "telescoping," interferes with an analysis of recall bias since it often affects reporting in a forward direction. Thus, a combination of "recall effects" results.

Researchers within BLS have examined time-in-sample and recall effects in two studies using aggregate data from 1982-83 and microlevel data from 1984. The first study revealed that recall bias, more than panel conditioning, contributed to the underreporting of expenditures. The researchers noted that internal telescoping, or erroneous reporting of the expenditure month, would not account solely for the systematic variations in mean expenditure by recall month.

The second study tested the importance of the relationship of CU characteristics and recall bias. The most important variables were the size, composition, and income level of the CU. Age and education of the survey respondent were important respondent characteristics. This study also pointed out how sensitive reporting patterns are to changes in interview week. As noted by the researcher, this was "a variable influencing not only the length of the reporting period but also the respondents' perception of it."

Related research, focusing on the Diary component, examined the record-keeping behavior of Diary respondents. Data collected in a 1984 supplemental survey indicated that almost 20% of the respondents completed at least one of the two diaries by total recall—an obvious threat to the quality of the data received from the Diary Survey.

2. *Development of composite estimates for quarterly change for the Interview Survey.*

Directly linked to BLS plans to publish data routinely on a quarterly basis, composite estimation is used to combine data from several sources into a single estimate in such a way that the resulting estimate is more accurate than any of the component estimates. Future research in this area includes the development of composite estimators that measure quarterly level and change estimates.

3. *Development of a multivariate analysis package for nonnormal distribution testing.*

Hypothesis testing based on the assumption of normality of the underlying data may permit improper inferences if the data are substantially nonnormal. To detect significant changes and trends in mean expenditures or relative importances for the CES, statistical tests need to be developed that are resistant to non-normality. Researchers within BLS are conducting preliminary work on this issue; however, more comprehensive analysis is needed before an automated statistical system can be developed.

4. *Development of an income imputation methodology for small size sample surveys.*

Imputation methods are used to account for question nonresponse. Frequently, the failure of an individual to respond to particular items is related to item sensitivity. Income questions tend to be highly sensitive to many people; consequently, item nonresponse for income is expected to be high. Historically, for the CES, data imputation has not been used to account for missing or invalid entries for income. However, from a research viewpoint, there is interest within BLS to develop an income imputation methodology for the CES. Research being conducted on this topic currently focuses on the characteristics of CU's who fail to report complete income. This research should have important implications for developing imputation methods that could be used to impute income for nonrespondents.



Household Expenditures for Education and Reading

By Nancy E. Schwenk
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There were 57.3 million students ages 3 to 34 years enrolled in schools in the United States in 1984. School expenditures totaled \$226.5 billion that year, and included expenditures for nursery, kindergarten, special programs, elementary, secondary, and institutes of higher education. Approximately 49 million students, or 86%, were enrolled in public schools. Annual expenditure per student (in average daily attendance) in public elementary and secondary schools was \$3,182 (2).

Household Expenditures

Household education expenditures include purchases of books and supplies for college, high school, elementary school, and day care; tuition for college, high school, elementary school, and other school tuition; and other school expenses, including rentals. Reading expenditures include purchases of newspapers, magazines, periodicals, books, encyclopedias, and reference materials.

Beginning with the 1984 Consumer Expenditure Survey, a student living in college- or university-regulated housing was considered to be an independent consumer unit (5). As such, while at school, the student

reported expenditures directly, rather than being included as a member of a parental household. The high portion of total expenditures allocated to education and reading among single consumers can be attributed, in part, to this change in methodology.¹

Education expenditures

In 1984, CES households reported mean annual expenditures for education of \$298, with a range from \$0 to \$71,200. Consumers' indirect expenditures on education were much greater, however, because 26% of all tax dollars spent by Federal, State, and local governments in 1984 were spent on education (2).

The most costly education subcategory in 1984 was college tuition, which averaged \$2,610 per year for those who reported having that expenditure (7% of surveyed households). College tuition ranged as high as \$60,500 annually for an individual household. The next most costly subcategory was elementary and high school tuition, which averaged \$1,813 per year. This ex-

¹ See p. 2 of this issue, Methodological Issues for Today and Tomorrow, by Thesia I. Garner.

penditure was reported by 3% of CES households, and ranged as high as \$18,000 per year.

Other annual education expenses incurred by CES households were books and supplies for daycare (\$258), books and supplies for elementary and high school (\$142), books and supplies for college (\$427), other school tuition (\$1,426), and other school expenses, including rentals (\$247).

Reading expenditures

Mean annual household expenditure for reading in 1984 was \$134, with a range from \$0 to \$4,232. The most costly reading expense in 1984 was the purchase of encyclopedias and reference books, which averaged \$306 for those CES households (1%) that incurred this expenditure. Books purchased through book clubs averaged \$127, and other books cost \$111. In 1984 consumers purchased 111 million books through book clubs, spending \$519 million; 10 years previously consumers purchased 202 million books through book clubs, spending \$307 million. The average retail price of a hardcover book in 1984 was \$30.00, and a paperback book averaged \$3.41 (2).

The most common purchase by CES households in the reading category (reported by 69%) was newspapers, which averaged \$89 annually. In 1984 there were 9,151 newspapers published in this country, with a total daily circulation of 63.1 million. The next most common reading purchase (occurring in 38% of households) was magazines and periodicals.

Expenditures reported by CES households in 1984 and 1972-73 were compared by updating both to 1987 dollars, using the Consumer Price Index. Expressed in 1987 dollars, real spending on education increased over the years from \$339 in 1972 to \$375 in 1984. Similarly, real spending for reading materials, expressed in 1987 dollars, increased from \$123 in 1972 to \$146 in 1984.

Individual household expenditures for education were obtained from the 1984 Consumer Expenditure Survey (CES), an ongoing survey conducted by the Bureau of Labor Statistics, U.S. Department of Labor. Expenditures for reading, a consumption category closely related to education, are also included. Findings reported here are based on responses from 18,538 households who participated in the Interview portion of the 1984 Survey and who reported positive income. Households were asked about expenditures for education and reading for the previous 3 months, and these expenditures were projected for the year. Comparisons over time were made using data from the 1972-73 CES.

Subgroups of the Population

Income

For this analysis, households were divided into five income brackets—under \$10,000, \$10,000 to \$19,999, \$20,000 to \$29,999, \$30,000 to \$39,999, and \$40,000 and over. Households with annual incomes under \$10,000 in 1984, which included many college students, spent more on education than did households in the \$10,000 to \$19,999 and \$20,000 to \$29,999 income brackets (see table, p. 8). With the exception of the lowest income bracket, dollar amounts spent on education increased as income increased.

Households were also contrasted by income quintiles. Households in the lowest income quintile spent more on education than did households in the next three income quintiles. Expenditures for reading increased across the quintiles from \$72 per year for those households in the lowest 20% of income to \$255 for those in the highest 20% of income.

Age of reference person²

Those households in which the reference person was under age 25 spent the greatest amount on education in 1984 (\$601), followed by households in which the reference person was between 45 and 54 years of age (\$517). The age group with the lowest expenditure for education (\$88) was the 65- to 74-year-old age group. Those under age 25 allocated 5% of their total expenditures to education, whereas other age groups allocated between 1% and 2%. Expenditures for reading ranged from \$66 for households with reference persons under age 25 years, to \$173 for households with reference persons 35 to 44 years old and 45 to 54 years old. After age 54, reading expenditures decreased as age increased.

² The reference person is the first person mentioned by the respondent when asked to "Start with the name of the person or one of the persons who owns or rents the home."

Housing tenure

In 1984, 62% of CES households were homeowners and 38% were renters. Although homeowners had total expenditures that were 59% higher than renters, their yearly expenditures for education were very similar, \$295 and \$274, respectively. Renters spent less than two-thirds as much as homeowners spent on reading, although both groups allocated the same proportion of their total expenditures to reading (1%).

Household size

CES households consisting of five members had the highest total expenditures and spent the most money on education in 1984 (\$427). Households consisting of two members spent the least on education (\$220). Households with four members spent more than households of other sizes on reading (\$152). One-person households spent the least on reading (\$104); however, reading comprised a larger share of total expenditures in one-person households than in larger households.

Family composition

Husband and wife families with children had the highest total expenditures and the highest expenditures for education (\$407) and reading (\$163) of any family type in 1984. Single parents living with children under age 18 had the next highest expenditures for education (\$278) but the lowest expenditures for reading (\$89). Single consumers spent a greater proportion of their total expenditures on both education and reading than any other family type.

Region

In 1984, annual amounts spent on education varied among the four geographic regions of the country, from a low of \$253 in the South to a high of \$437 in the Northeast. Similar expenditure patterns were found for reading, which ranged from a low of \$122 in the South to a high of \$161 in the Northeast. Also,

households in the Northeast spent a larger portion of their total expenditures on both education and reading than households in the other three regions. Households living in the West spent more on education (\$308) than Midwestern households (\$293) but less on reading (\$141, compared with \$151).

Race

White³ households spent one-third more on education than black households and twice as much on reading in 1984. Total expenditures for white households were 57% higher than for black households. However, blacks spent a greater proportion of their total expenditures on education than whites did.

Predicting Expenditures

To determine what demographic factors were related to education and reading expenditures for CES households, a multiple regression was conducted.⁴ For this analysis, expenditures for education and expenditures for reading were added together. Total expenditures, the educational attainment of the reference person, residency in the Northeast region of the country, the number of earners in the household, and before-tax income were positively related to education and reading expenditures. Home ownership and the number of members in the household were negatively related. The age of the reference person, presence of children, and race were not significant factors ($p > .05$). Overall, total expenditures and the educational attainment of the reference person were the best predictors of education and reading expenditures.

³ Group includes American Indian, Aleut, Eskimo, Asian or Pacific Islander, and other.

⁴ The multiple R^2 for the equation was .07. Intercorrelations of all the independent variables in this regression analysis were less than .59.

Mean annual education and reading expenditures of Consumer Expenditure Survey households, by household characteristics, 1984

Household characteristic	Total expenditures	Education	Reading
Income brackets:			
Under \$10,000	\$10,912	\$271	\$70
\$10,000-\$19,999	15,003	168	105
\$20,000-\$29,999	19,699	208	144
\$30,000-\$39,999	24,387	299	168
\$40,000 and over	36,018	568	261
Income quintiles:			
Lowest	11,347	353	72
Second	13,864	150	92
Third	18,981	201	128
Fourth	25,525	271	163
Highest	40,935	540	255
Age of reference person (years):			
Under 25	13,178	601	66
25-34	21,506	209	136
35-44	27,702	367	173
45-54	28,623	517	173
55-64	23,000	275	149
65-74	15,873	88	130
Over 75	11,196	101	93
Housing tenure:			
Homeowners	22,462	295	158
Renters	14,096	274	97
Household size:			
1 member	12,009	245	104
2 members	19,037	220	144
3 members	22,967	335	150
4 members	24,304	352	152
5 members	25,597	427	148
6 members or more	24,595	363	130
Family composition:			
Husband and wife with children	25,478	407	163
Single parent with children	15,126	278	89
Other families	20,025	215	142
Single persons	12,009	245	104
Region of residence:			
Northeast	19,748	437	161
Midwest	18,766	293	151
South	19,845	253	122
West	21,596	308	141
Race:			
White and other	20,006	295	142
Black	12,780	215	70

College Costs

The cost of financing a child's education beyond high school is of great concern to most parents today. In 1984, charges at institutes of higher learning for tuition, required fees, room, and board averaged \$3,156 at public schools and \$7,509 at private schools (1). Between 1983 and 1984 there was a 9.7% rise in the Consumer Price Index (CPI) for education, which was the largest percent change of any consumer expenditure category (4). Between 1977 and 1987, private 4-year colleges raised tuition by an average of 141% and public schools by 114%, compared with a rise in the CPI of 87% over the same period. The cost of a 4-year education at many private colleges is approaching the median

price of a home in the United States. For the 1987-88 school year, private colleges averaged \$11,982 and public colleges, \$5,789 (1).

Depending on the child's age, there are a number of options available to parents concerned with financing their child's college education. Those parents with a child nearing college age might investigate scholarships, Federal loans, and college work-study programs. Parents of a young child can choose from a number of investment plans to pay for future tuition. Some banks issue a certificate of deposit with investment income guaranteed to keep up with rising college costs.

Many private colleges and several State university systems offer "pay now, attend later" plans, which enable parents to prepay a young

child's tuition at today's prices. Interest earned on the invested money should make up the difference between current tuition and what will be charged in the future. The State of Michigan's tuition prepayment plan, the first to be proposed by a State, received a favorable ruling from the Internal Revenue Service in March 1988 (6). The ruling states that although the State must pay taxes on the deposited funds, families who purchase prepaid tuition have no tax obligation on their investment, but students may be taxed later. The Michigan plan has inspired more than three dozen other States to consider similar programs.

Senator Edward Kennedy has introduced a tuition savings bill that encourages families to use U.S. savings bonds to pay college tuition by exempting the interest from Federal income tax. The Reagan administration included a similar program in its fiscal 1989 education budget.

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Household Transportation Expenditures

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Data are from the 1982-83 Consumer Expenditure Survey (CES) (9), a continuing survey conducted by the Bureau of Labor Statistics, U.S. Department of Labor. Findings reported here are based on responses from over 18,000 households who reported positive income and who participated in the interview portion of the Survey in 1983. Comparisons were made with data from the two previous Consumer Expenditure Surveys of 1973 and 1980-81 (approximately 10,000 households and 18,000 households, respectively). For more information regarding the CES, see *Housing Expenditures* by Nancy Schwenk in *Family Economics Review* 1988(1):1.

In the decade between 1973 and 1983, household expenditures for transportation were affected by 1. the oil embargo of 1973, 2. the recessionary periods that occurred between 1973-75 and 1981-82, and 3. increased fuel efficiency for newer vehicles. Expenditures for transportation increased more than total household expenditures between 1973 (7) and 1983 (146% and 127%, respectively). Similarly, transportation prices, as measured by the Consumer Price Index, rose 142%, compared with 123% for all items. In contrast, prices for gasoline and oil increased by 220% over the decade and 110% between 1978 and 1981 (see fig. 1). This very rapid price increase made automobiles with better gas mileage more attractive to consumers.

What adjustments do families make when confronted with rapidly rising prices, particularly in one budget category? This article examines changes in household transportation expenditures over time, reports spending for subgroups of the U.S. population, and describes transportation patterns and trends.

Comparisons Over Time

In 1983, CES households reported that a slightly higher share of total expenditures was spent for

transportation (22%) than reported in 1980-81 (20%) or 1973 (20%). Transportation expenditures for 1983 were \$4,028; expenditures for gasoline and oil averaged \$1,058, comprising 26% of all transportation expenses. In contrast, respondents in the 1980-81 CES (8) reported spending 34% of their transportation dollars for gasoline and oil. Other transportation expenditures incurred in 1983 included those for new cars and trucks (\$931); used cars and trucks (\$699); vehicular maintenance and repairs (\$440); insurance (\$332); public transportation (\$247); financing (\$177); and rentals, licenses, and various fees (\$114) (see table 1, p. 10).

Transportation expenditures reported in the three surveys were compared by updating to 1987 dollars, using the Consumer Price Index. Expressed in 1987 dollars, real spending for transportation fluctuated over the years from \$4,206 in 1973 to \$4,127 in 1980-81 and \$4,266 in 1983. In contrast, real spending for the gasoline and oil component decreased from \$950 in 1973 to \$916

Figure 1

Changes in Consumer Prices for Selected Items

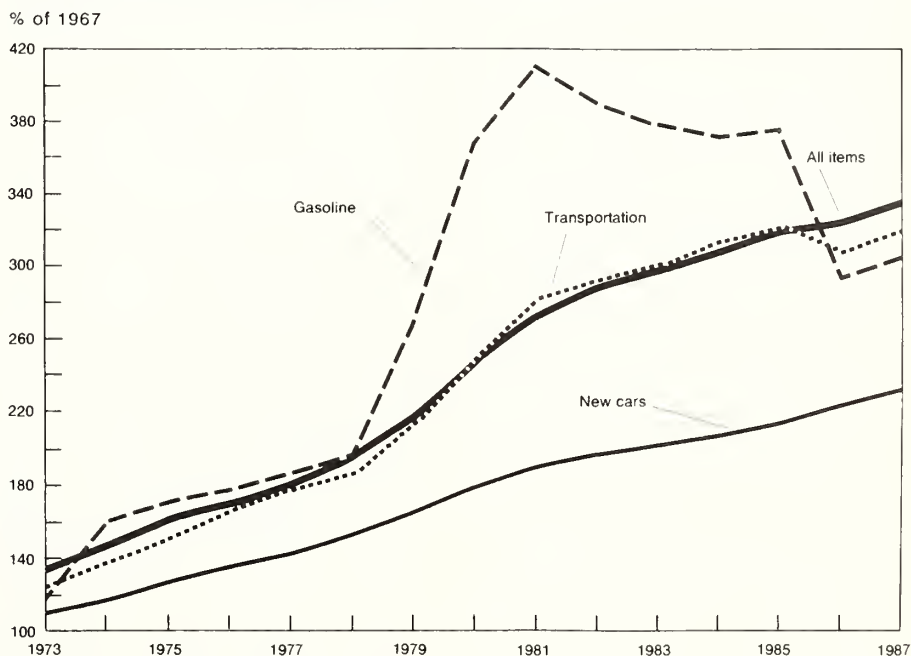


Table 1. Transportation expenditures, by family income level, 1983

Item	Income level					
	All families	Under \$10,000	\$10,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 and over
Mean transportation expenditures	\$4,028	\$1,501	\$3,122	\$4,657	\$5,284	\$7,898
Percent						
Transportation as a percent of total expenditures	22	16	22	24	23	23
Transportation component as a percent of transportation expenditures:						
Cars and trucks, (net outlay):						
New	23	8	17	25	23	33
Used	17	23	19	17	16	12
Other vehicles	1	1	1	1	1	(*)
Vehicle financing	4	3	4	5	5	5
Gasoline and oil	26	35	30	27	27	22
Maintenance and repairs	11	13	12	11	12	10
Vehicle insurance	8	8	8	8	9	8
Public transportation	6	7	6	4	5	6
Vehicle rent, licenses and other charges	3	3	3	3	3	4

* Less than .5%

in 1980-81 and \$854 in 1983. Definitional changes between the 1972-73 CES and later surveys made comparisons of other transportation components inappropriate. For a complete description of the various items included in each component for 1972-73 and 1980-81 forward, see table 2 on page 12.

Subgroups of the Population

Income

Household expenditures for transportation increased as household incomes increased (table 1). Also, households earning less than \$10,000 allocated a smaller percentage of their total expenditures for transportation than did other families.

As household income increased, the percentage of the transportation dollar spent on new cars and trucks increased and the percentage spent on used cars and trucks and gasoline and oil decreased. Gasoline and oil expenditures represented over one-third of the transportation dollars spent by families earning less than \$10,000.

Race¹

Because white and other households had higher average in-

comes in 1983 than black households (\$24,042, compared with \$15,351), it was not unexpected to find that expenditures for transportation by race reflect patterns similar to those observed for income level. White and other households spent a higher percentage of their total transportation expenditures for new cars and trucks than did black households, 24% and 13% respectively. In contrast, gasoline and oil expenditures comprised a larger share of transportation expenditures in black households than in other households. In 1983 black families spent 35% of their transportation dollar for gasoline and oil, whereas white and other families spent 26%.

Housing tenure

Housing tenure made little difference in overall transportation expenditures. Both homeowners (with a mean income of \$28,290) and renters (with a mean income of \$15,240) spent 22% of their total expenditures on transportation in 1983. Also, both groups spent 27% of their total transportation dollars

¹ Refers to the race of the reference person, the first person mentioned by the respondent when asked to "start with the name of the person or one of the persons who owns or rents the home."

for gasoline and oil. However, homeowners spent 26% of their transportation expenditures on new cars and trucks, compared with 17% for renters. In contrast, renters spent 23% of their transportation dollars on used cars and trucks and homeowners spent 14%.

Homeowners spent a slightly higher percentage than renters for vehicle insurance (9%, compared with 7%) but less for public transportation (5%, compared with 7%).

Age of householder

Households headed by an individual between 45 and 54 years of age had the highest income, total expenditures, and overall transportation expenses. In addition, these households spent more than other households for gasoline and oil, vehicle maintenance, and insurance. Younger households (householder under age 25) spent a higher share of total expenditures for transportation than other households, whereas older households (headed by an individual over age 65) allocated the lowest percent of total expenditures for transportation (26% and 18%, respectively). Older households were more likely to spend money for new cars and trucks, and younger households spent the highest share of their transportation dollar for used cars and trucks. In all other households (with a householder between 25 and 64 years) the largest share of the transportation dollar was spent for gasoline and oil.

Family composition

Transportation expenditures were compared for husband and wife families with and without children, single-parent households, individual consumers, and all other families (see fig. 2, p. 11). All other families spent the largest share of total expenditures for transportation (24%) and single-parent households spent the smallest share (18%). This compares with a 23% share for husband and wife households with children, 22% for husband and wife families with

no children, and 20% for individual consumers.

Husband and wife households with no children spent 29% of their transportation dollar for new cars and trucks and 25% for gasoline and oil (see fig. 2). All other household categories spent a 12% to 23% share for new cars and trucks and between 26% and 30% for gasoline and oil.

Household size

Households composed of two or more members spent a greater share of their total expenditures on transportation than did single persons. Larger households (six or more persons) spent more than other households on used cars and trucks and less on new cars and trucks. The greatest transportation expenditure for these larger households was for gasoline and oil. Compared with other households, individual consumers spent a higher percentage of total transportation expenditures on public transportation.

Region

In 1983, Western households spent the most on transportation (\$4,297) and households in the Northeast spent the least (\$3,730). Midwestern households spent \$3,914 on transportation and Southern households \$4,004. Transportation represented a slightly smaller share of total expenditures for households in the Northeast than in other regions.

In comparing the proportion of the transportation dollar spent on the various transportation categories, Northeastern households spent less than households in other regions on used cars and trucks (12%, compared with 18%). In contrast, households in the West spent less than households in other regions for new cars and trucks (17%, compared with 24% to 27%).

Northeastern and Western households spent more of their total transportation dollars on public transportation (8%) than households in the Midwest and

South (4%). This reflects, in part, the greater availability and use of mass transit in and around large urban areas. Western households spent 26% more for public transportation in 1983 than in 1980-81, whereas spending by households in the three other regions decreased slightly.

Predicting Transportation Expenditures

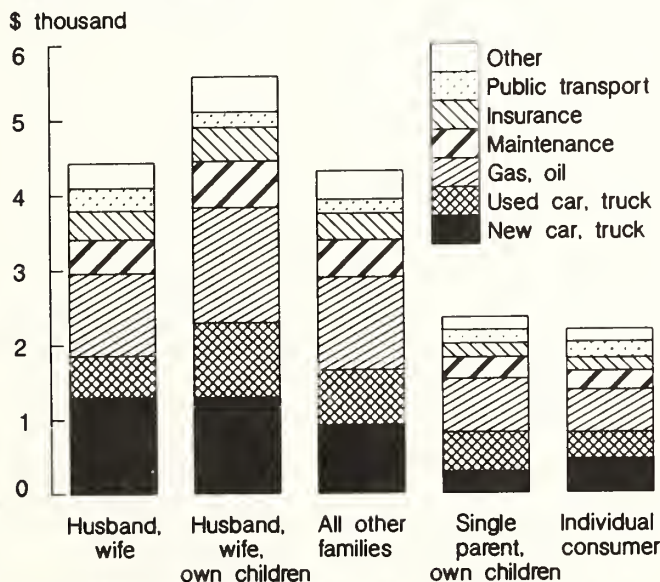
Transportation expenditures were found to vary with the level of total expenditures, age of householder, presence of children, and region of residence.² Total household expenditures was positively related to transportation expenditures and was the best predictor of these expenditures. Age of householder and presence of children were negatively related to transportation expenditures. Households in the Northeast and West spent less on transportation than those in the Midwest. Factors that had little effect on these expenditures included housing tenure, race, and residence in the South.

Transportation Patterns and Trends

During the decade between 1973 and 1983, volatility in the price of gasoline led to the increased production of smaller vehicles. Consumers demanded improved fuel efficiency in newer vehicles, and the Federal Government mandated increases in corporate average fuel economy standards. In 1973 the average miles per gallon (mpg) attained by current model domestic and imported cars was 14.2; average mpg climbed to 25.9 by 1981 and 26.4 by 1983. This increase can be attributed, in part, to the expanded U.S. production of

Figure 2

Transportation Expenditures by Family Composition



1983 Consumer Expenditure Survey data. Source: Bureau of Labor Statistics.

² A multiple regression was conducted to determine what factors were related to transportation expenditures. The multiple R^2 for the equation was .31. Interrelation of total expenditures and income was .48. Interrelations of all other independent variables in this regression analysis were no greater than .35 in either direction.

Table 2. Definitions related to transportation expenditures in the Consumer Expenditure Survey

1972-73	1980-81 to present
Transportation, total, excluding trips.	Transportation, total.
Vehicle purchases (net outlay) includes the net outlay (purchase price minus trade-in value) on new and used, domestic and imported cars and trucks; excludes recreational vehicles such as attachable campers, trailers, motorcycles, boats, private planes, and other (such as snowmobiles and dune buggies).	Cars and trucks, new (net outlay). Cars and trucks, used (net outlay). Other vehicles include attachable campers, trailers, motorcycles, and private planes.
Vehicle finance charges includes the dollar amount of interest paid for a loan contracted for the purchase of vehicles.	Vehicle finance charges includes the dollar amount of interest paid for a loan contracted for the purchase of vehicles.
<i>Vehicle operations, total:</i>	<i>(Vehicle operations, total--discontinued.)</i>
Gasoline and fuels includes gasoline expenses for cars, as well as combined gas and oil expenses for trucks, self-propelled campers, vehicles owned outside the family (e.g., car pools), and multiple vehicle types from the quarterly Interview; and includes other fuels from the Diary.	Gasoline and motor oil includes gasoline, diesel fuel, and motor oil.
Other vehicle operations includes the expense of lubrications and filters, and oil changes for automobiles; the combined expense of gasoline and oil for other vehicles not mentioned above; and the expense of tires and tubes, batteries, air conditioners, other major equipment, vehicle insurance, and repairs not paid for by insurance for all cars, trucks, and self-propelled campers from the quarterly Interview; and includes oil and gasoline additives, and brake and transmission fluid from the Diary.	Maintenance and repairs includes tires, batteries, tubes, lubrication; filter, coolant, additives, brake and transmission fluid, oil change, front end alignment, wheel balancing, shock absorber replacement; repairs to steering, clutch, transmission, electrical, exhaust and cooling systems, drive train, drive shaft, rear end, and motor; other maintenance; and auto repair policy. Vehicle insurance includes the premium paid for insuring cars, trucks, and other vehicles.
Other transportation includes leased cars, rental cars, combined expenses for vehicle operations, fees for State and local registration, vehicle inspection, driver's license, parking, towing, and the cost of nonvacation travel within and outside the commuting area through use of public transportation such as buses, trains, ships, airplanes, and other from the quarterly Interview; and includes chauffeur services, car washing, tolls, and other carpooling expenses from the Diary.	Public transportation includes fares for mass transit, buses, trains, airlines, taxis, private school buses; and the fares paid on trips for trains, boats, taxis, buses, and airlines. Vehicle rent, licenses, and other charges includes leased and rented cars, trucks, motorcycles, campers, trailers, and aircraft; inspections; State and local registration; and fees for driver's license, parking, towing, landing, and docking; and tolls on trips.

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1976, *Consumer Expenditure Survey Series: Interview Survey, 1972 and 1973*, Report No. 455-3 (6); and U.S. Department of Labor, Bureau of Labor Statistics, 1985, *Consumer Expenditure Survey: Interview Survey, 1980-81*, Bulletin No. 2225 (8).

smaller cars (fig. 3.) and growth in sales of imported cars. From 1973 to 1983, domestic auto sales declined by 30%, while imported auto sales rose by 35% (3). Also, the average speed traveled in miles per hour dropped from 65.0 in 1973 to 59.1 in 1983 (4). Each of these factors contributed to the decrease in average annual fuel consumption per car from 736 gallons in 1973 to 555 gallons in 1983 (4).

Households owned an average 1.8 cars in 1983 (4); 86% of all households in the United States owned or had regular use of a vehicle for personal transportation.³ The number of registered passenger cars increased by 24% between 1973 and 1983. Families drove an average 16,830 miles and used 1,112 gallons of motor fuel (5). About 75% of all cars were registered in metropolitan areas in 1983 (3).

Traffic in the metropolitan areas of the United States increased 50% between 1970 and 1980. Increases in

population (7%) and in the number of persons working in metropolitan areas (22%) contributed to this traffic increase. Also, the number of workers in metropolitan areas who used public transportation decreased by 9% between 1970 and 1980 (2).

Conclusions

The average American household allocates about one-fifth of its total expenditures for transportation. Over the years, this share has expanded from 20% in 1973 to 22% in 1983. Transportation was the second largest component of the budget in 1973, exceeded only by housing expenditures (33%). Forces throughout the international economy that impact on price and supply of automobiles and gasoline directly affect the household budget. When the price of gasoline peaked in 1981, CES households were spending 34% of their transportation dollar for gasoline and oil. By 1983 gasoline prices had moderated somewhat and CES households spent a 26% share for gasoline and oil.

In contrast, automobile prices have risen steadily, making it more difficult for families to afford new

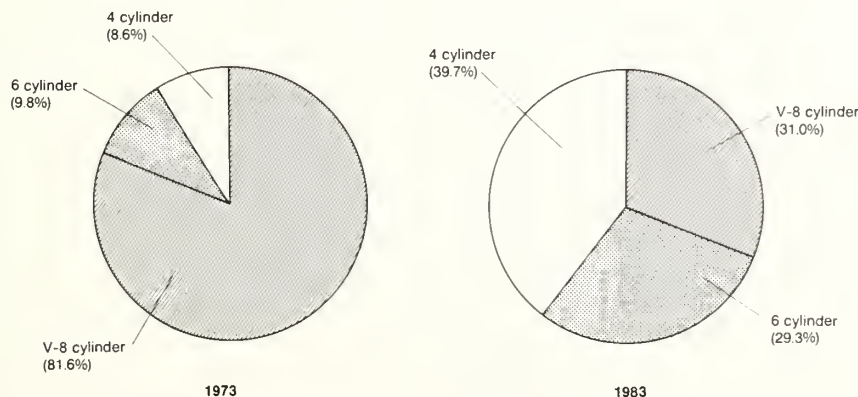
cars. In 1983, CES households with low incomes (single-parent households, renters, households headed by blacks or young persons) were more likely to spend money for used, rather than new, cars and trucks. Nevertheless, the availability of an increasing number of smaller vehicles with improved fuel efficiency has helped to keep the overall costs of transportation affordable for most U.S. households.

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Figure 3

Engine Size of Automobiles



Expenditure Patterns of Single Women and Single Men

The labor force participation rate for women 25-54 years of age was over 70% in 1986. As more and more women work, their economic influence becomes an important factor in the economy. However, little research has been done on the role of gender in consumer behavior patterns because consumption data is not usually recorded for men and women separately. As a first step in isolating expenditure differences by sex, a study by the Bureau of Labor Statistics, U.S. Department of Labor, examined data for single men and single women using the 1984-85 *Consumer Expenditure Survey*. Demographics, sources of income, and expenditure patterns of single men and women were reported.

The demographic characteristics identified for single men and women were age, income, and race. Single men were younger than single women, with mean ages of 40 and 54 years, respectively. Over half of single men were under age 35, whereas more than half of single women were over age 55. In all age groups, men earn more than women. Single men, on average, earn about \$7,000 more a year than women. Three-fourths of the women compared to about half the men earned less than \$15,000 a year. A slightly larger percentage of single men than single women were black, 12% and 9% respectively.

Sources of income differed markedly for single men and women (fig. 1, p. 15). Single men earn more of their income from wages and salaries compared to single women. Social

security income, pensions, and government retirement are more important sources of income for single women because many more women are in the older age groups. Men earn a larger share of their income from self-employment than do women.

Single men reported total expenditures of \$15,338 per year, compared to \$11,095 per year for single women (fig. 2, p. 15). Budget shares (the proportion of an item relative to total expenditures) were tested for significant differences between men and women. Results showed that single women spent a larger share of their total expenditures on food at home, housing, apparel, and health care. Single men spent a larger share on food away from home; transportation; entertainment; cash contributions; miscellaneous items; and retirement, pensions, and Social Security.

More single women than single men were homeowners, 41% and 29% respectively. Because utilities are often included in the rent of many units and more men than women are renters, the budget share for utilities reported by men was lower than that reported by women. Although men spent a smaller share of their total expenditures than women for apparel and services, 25% of their apparel budget was spent on gifts. About half of men's gift purchases were for jewelry and watches.

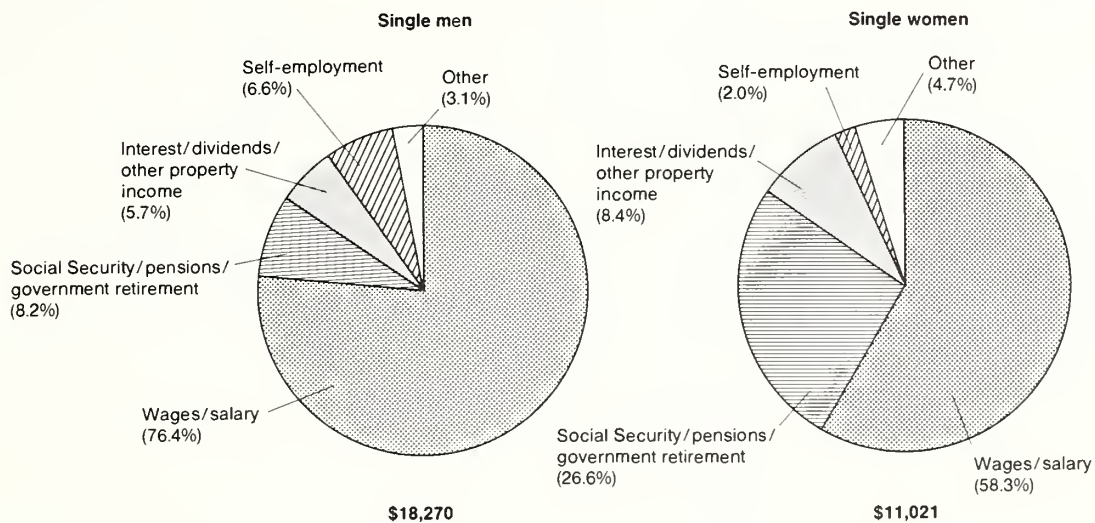
Further analysis of the expenditure data was undertaken by controlling for income, age, and race. Gender differences in mean expenditures were found for alcoholic beverages, shelter, vehicles, gasoline and motor oil, other vehicle expenses, health care, personal care services, and life and other personal insurance. Single women spent more for health care and life and other personal insurance; single men

spent more for all other expenditures. Expenditure differences by gender for housing, transportation, and personal care services diminish as income increases. In contrast, single men and women do not spend significantly different amounts on apparel. What is notable, however, is that as income increases women spend significantly more than men on apparel. There were only four items for which gender was not significant—food at home, household operations, cash contributions, and miscellaneous goods and services.

Source: Shipp, Stephanie, 1987, *Expenditure Patterns of Single Women and Single Men*. U.S. Department of Labor, Bureau of Labor Statistics, paper presented at the American Statistical Association meeting, August 17 to 22, 1987, San Francisco, CA.

Figure 1

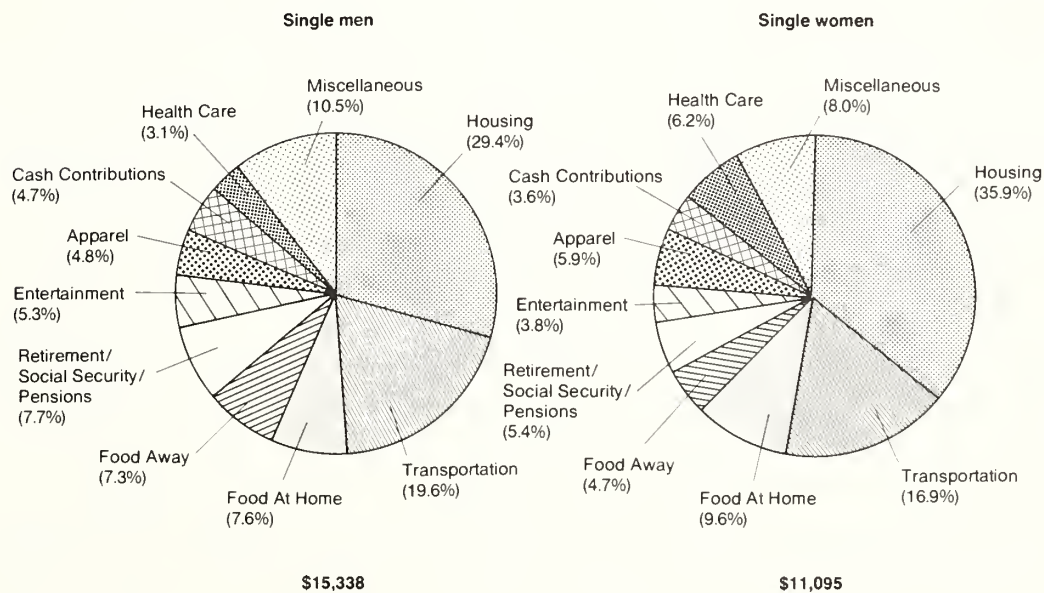
Sources of Income



Source: U.S. Department of Labor, Bureau of Labor Statistics, 1984-85 Consumer Expenditure Survey.

Figure 2

Expenditure Shares



Source: U.S. Department of Labor, Bureau of Labor Statistics, 1984-85 Consumer Expenditure Survey

Comparing Nutrients in the Soviet and U.S. Food Supply

Information is now available on food use in the Soviet Union. A recent study estimated and compared levels and sources of food energy (calories), nutrients, and other food components in the food supplies of the Union of Soviet Socialist Republics (U.S.S.R.) and the United States for 1965 and 1981 (see box). The study was initiated by the Office of Soviet Analysis of the Central Intelligence Agency and conducted jointly with USDA's Human Nutrition Information Service (HNIS).

Comparison of Food Use

In both the Soviet Union and the United States, per capita quantities of food in most food groups increased between 1965 and 1981 (table 1). During this period, use of potatoes and grain products declined in the Soviet Union; in the United States, use of eggs, dairy products, potatoes, and animal fats decreased. Per capita levels of food use in both years were generally higher in the United States

except for potatoes, grain products, fish, and animal fats.

Between 1965 and 1981, high percentage increases (over 40%) in the Soviet Union were attained by poultry, eggs, fruit, fish, vegetable fats, and dairy products. The only food groups with comparable gains in the United States were poultry and vegetable fats.

Nutrient Levels and Sources

Levels of calcium, vitamin A, vitamin B₁₂, fat, and cholesterol in the Soviet food supply increased between 1965 and 1981. However, levels of these nutrients and those for iron, thiamin, and riboflavin remained lower in the Soviet Union than in the United States (table 2). Carbohydrate and magnesium levels were higher in the U.S.S.R. food supply during this period, reflecting greater use of grain products.

Sources of food energy differed in the two countries, especially the shares from fat and carbohydrate. During the 1965-81 period, food energy supplied by fat increased from 24% to 28% in the Soviet food supply, far below the 42% in the U.S. supply in 1965 and 1981. The share of food energy from carbohydrate in the U.S.S.R. declined from 64% to 60% but still topped the U.S. share of 46% in both

years. Cholesterol in the Soviet food supply rose markedly, whereas in the U.S. the level declined—paralleling egg use (the major source of cholesterol in both food supplies). In 1981, grains supplied almost 50% of the iron and 45% of the protein in the Soviet food supply. In the United States grains supplied 32% of the iron and 19% of the protein; and the meat, poultry, and fish group provided 31% and 43%, respectively.

Source: Economic Research Service, U.S. Department of Agriculture, 1988, National Food Review 11(1):18-23.

Published and unpublished sources within the USDA provided the nutrient content of food of both countries. The types and amounts of food used in the two countries were the basis for calculating nutrient levels of the food supplies. HNIS annually prepares information on nutrients in the U.S. food supply based on Economic Research Service estimates of food available for consumption. U.S. food composition values were applied to foods in the U.S.S.R. when they were similar. Values used for other Soviet items were developed by HNIS because composition data from Soviet sources are available only for a limited number of foods and nutrients.

The Office of Soviet Analysis (OSA) of the Central Intelligence Agency supplied data on Soviet per capita food use from various published and unpublished sources. However, in many cases Soviet data were not as specific as the U.S. information. To make the data more comparable, quantities of some foods within major groups were estimated. For example, Soviet data on meat consumption initially included slaughter fat and offal. Using OSA information, HNIS researchers adjusted the quantities of meat to count fat and offal as individual items in the Soviet food supply.

Food use in both countries was derived by subtracting exports, yearend stocks, and nonfood use from food production (including home produce), imports, and beginning stocks. These data represent the amounts of food available for consumption and do not indicate actual household use or individual intakes.

Table 1. Food use in the Soviet Union and the United States

Food group	Soviet Union		United States	
	1965	1981	1965	1981
<i>Pounds per capita</i>				
Dairy products, excluding butter ¹	244	347	453	405
Eggs	16	32	40	34
Meat, poultry, fish	112	157	201	234
Meat	78	98	146	154
Poultry	6	19	41	63
Fish	28	40	14	17
Fats and oils	39	51	51	61
Animal fats	18	21	18	13
Vegetable fats	21	30	33	48
Legumes and nuts	1	2	16	15
Potatoes ²	313	232	86	78
Vegetables	148	197	196	203
Fruits	60	88	163	187
Grain products	343	304	145	151
Sugars and sweeteners	77	98	112	135
Miscellaneous ³	1	1	16	12

¹ Based on calcium equivalent of fluid whole milk.

² U.S. data include sweetpotatoes.

³ U.S.S.R. data include tea. U.S. data include coffee, chocolate liquor equivalent of cocoa beans, and fortification not assigned to a specific food group.

Source: Economic Research Service, U.S. Department of Agriculture, 1988, *National Food Review* 11(1):18-23.

Table 2. Nutrient Levels in Soviet and U.S. Food Supplies [per capita per day]

Nutrient (unit)	Soviet Union		United States	
	1965	1981	1965	1981
Food Energy (calories)	3,100	3,200	3,200	3,400
Protein (grams)	90	100	100	100
Fat (grams)	80	100	150	160
Cholesterol (milligrams)	270	400	520	490
Carbohydrate (grams)	500	490	370	390
Minerals:				
Calcium (milligrams)	590	760	920	870
Zinc (milligrams)	11	12	12	12
Iron (milligrams)	15	15	16	17
Magnesium (milligrams)	430	420	330	330
Vitamins:				
Thiamin (milligrams)	1.9	1.8	1.8	2.1
Riboflavin (milligrams)	1.7	1.8	2.2	2.3
Ascorbic acid (milligrams)	120	120	100	120
Vitamin A (international units)	4,200	5,800	7,500	7,700
Vitamin B ₆ (milligrams)	2.1	2.0	1.8	2.0
Vitamin B ₁₂ (micrograms)	4.7	6.6	8.9	9.1

Note: U.S. data include iron, thiamin, riboflavin, ascorbic acid, vitamin A, vitamin B₆, and vitamin B₁₂ added by enrichment and fortification. Data are rounded.

Source: Economic Research Service, U.S. Department of Agriculture, 1988, *National Food Review* 11 (1):18-23.

Characteristics and Housing Problems of Mobile Home Owners

Mobile homes¹ have been an important source of housing for over two decades especially in nonmetro areas, where one in five new homes and one in eight existing units are mobile homes. They are more prevalent in the South and West than in the Northeast and North Central regions. Variation in local zoning regulations affects the availability of mobile homes. Rural areas often place fewer restrictions on their location. One of the key attractions of mobile homes is their affordability, not their mobility. Once installed on a site, most are never moved.

Data from the 1983 Annual Housing Survey² were used to examine the characteristics of mobile home owners and the housing problems they experienced. Comparisons were made with owners of conventional homes and renters. The analysis was based on a sample of 1,211 owners of mobile homes, 13,255 owners of conventional single-family homes, and 4,228 renters. Location of housing units was restricted to nonmetro areas, and households were restricted to those with family incomes less than \$24,580 (the U.S. median in 1983).

Looking at the demographics, owners of mobile homes were younger than owners of conventional homes,

Profile of mobile and conventional home owners, and renters¹

Characteristic	Mobile home owners	Conventional home owners	Renters
<i>Percent</i>			
Marital status:			
Married	61	58	44
Widowed	15	23	13
Divorced or separated	16	12	23
Never married	8	6	19
Education:			
Elementary	23	25	21
Part high school	22	18	19
High school	43	37	32
Beyond high school	12	20	23
Age of head (years):			
Less than 30	29	8	37
30-49	32	29	34
50-64	17	25	13
More than 65	22	38	17
Female head of household	29	35	40
Black head of household	10	13	14
<i>Dollars</i>			
Average yearly income	12,236	12,886	10,127
Average monthly housing cost	217	256	247

¹ Sample restricted to households in nonmetro areas with income below the national median (\$24,580 in 1983).

Source: Meeks, Carol, 1988, Mobile homes a viable alternative in rural America, *Rural Development Perspectives* 4(2):29-32, U.S. Department of Agriculture, Economic Research Service.

had a bit less schooling, and had lower incomes. They were more likely to be married but less likely to be widowed. Compared with renters, they were somewhat older, had a bit less schooling, and had higher incomes. Owners of mobile homes had lower monthly housing costs than either renters or owners of conventional homes.

The number of problems reported by occupants was used as an indication of housing quality. Owners of mobile homes averaged somewhat more problems (1.6) than owners of conventional homes (1.5), but 66% of conventional homeowners and 54% of mobile homeowners reported no problems. Mobile homes had fewer structural problems than rental units. However, mobile homes had more roof leaks and holes in the floor than conventional single-family homes. Conventional homes and rental units were significantly more likely to have electrical problems (lack of working electrical outlets and exposed wiring) than mobile homes.

In 1974 Congress passed the National Manufactured Home Construction and Safety Standards Act. The

purpose of the standards was to reduce personal injuries and property damage and to improve the quality and durability of manufactured homes. The Act regulates design; construction; strength; durability; fire resistance; energy efficiency; and plumbing, heating, cooling, and electrical systems of manufactured housing. In addition, some communities have established appearance criteria for mobile homes that specify the types of materials acceptable for siding and roof exterior. Others require permanent foundations, garages, and a minimum floor area.

Source: Meeks, Carol, 1988, Mobile homes a viable alternative in rural America, *Rural Development Perspectives* 4(2):29-32, U.S. Department of Agriculture, Economic Research Service.

¹ A manufactured home, or mobile home as defined by Federal law, is a structure transportable in one or more sections, which in the traveling mode is 8 feet wide or more or 40 feet long or more, when erected on site, is 320 or more square feet, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities. These homes are often referred to as HUD-code homes since they are built to the National Manufactured Home Construction and Safety Standards.

² In 1984 the Annual Housing Survey, undertaken by the Bureau of the Census, U.S. Department of Commerce, was renamed "American Housing Survey" and is currently being conducted every other year.

Caregivers of the Frail Elderly

Informal caregivers to the disabled elderly were predominantly female and three-quarters of them lived with the care recipient in 1982, according to the Informal Caregivers Survey (ICS).¹ The data suggest that caregivers as well as care recipients are a vulnerable group—one-third were over age 65, reported incomes in the poor to near-poor category, and described their health status as fair or poor. There also is evidence of competing familial and employment demands among a subgroup of caregivers.

The Long-Term Care Survey (LTCS) population consisted of approximately 6,400 persons drawn from the medicare enrollment files and identified as having long-term problems with at least one activity of daily living (ADL) (such as dressing or bathing) or one instrumental activity of daily living (IADL) (such as shopping). The ICS was designed to provide national data on informal systems of long-term care. Interviews were conducted with a sample of 1,924 persons who were at least 14 years of age and were identified by the elderly participants of the LTCS as providing unpaid assistance with at least one ADL.

Characteristics of Caregivers

Approximately 2.2 million caregivers 14 years or older provided unpaid assistance to the noninstitutionalized elderly in 1982. The family was the primary source of care for the frail or disabled elderly. Nearly three-fourths of disabled older persons who lived in the community relied solely on family and friends. Most of the others depended on a combination of family care and paid help. The majority (72%) of the caregivers were female;

adult daughters (29%) and wives of the care recipients (23%) represented over half of all caregivers. Husbands of the care recipients constituted 13% of the caregivers.

The average age of the caregivers was 57.3 years; 36% were 65 years or older. Husbands were the oldest caregivers—91% were over age 65, compared with 73% of the wives. About 60% of children (both sons and daughters) who provided care lived with the parent.

About 70% of the caregivers provided primary care. Of these primary care providers, 33% were sole providers of care, 29% had one or more unpaid helpers, and almost 10% purchased services in addition to receiving unpaid assistance. Sole providers of care were most often wives (60%) or husbands (55%); daughters (23%) and sons (11%) also provided primary care without assistance. Sons more frequently (52%) provided secondary care, compared with daughters (30%).

Characteristics of Care Recipients

Of the 1.2 million frail elderly who received informal care in 1982, 21% were 85 years and older (mean age was 77.7 years). Most (60%) care recipients were women; about 51% were married and 41% were widowed. Most of these persons (75%) lived with a spouse only or with a spouse and/or children; only 11% of the recipients lived alone.

One-third of the disabled care recipients had adjusted family incomes that were in the poor/near poor category; only 5% had high incomes. Health status was perceived as fair or poor by 70% of the frail elderly.

Assistance Provided by Caregivers

A majority (67%) of the caregivers provided assistance with one or more personal activities such as feeding, bathing, dressing, and toileting; and 46% helped the disabled person get in and out of bed. Of the caregivers, 86%

gave assistance with instrumental tasks related to shopping and transportation; 81% spent extra time on one or more household tasks including meal preparation, cleaning, and laundry; 53% administered medication; and 49% assisted with financial matters.

Daughters of the care recipients (69%) were more likely than sons (54%) to provide assistance with personal hygiene activities; 55% of the husbands and 41% of the wives helped their spouses get around. Husbands reported spending extra time for household tasks more frequently than did wives, 89% compared with 74%. Since wives are more likely than husbands to perform household activities, it is possible that caregiving husbands would perceive themselves as spending extra time on tasks, whereas wives would consider these activities to be an integral part of their role.

The number of tasks performed varied with the level of caregiver assistance. Primary caregivers with informal or formal helpers performed the greatest number of ADL's (three) and IADL's (six). Sole providers assisted with an average of two ADL's and five IADL's.

About 44% of the caregivers had been providing unpaid assistance for 1 to 4 years, and 20% had been providing assistance for 5 or more years. Only 18% of the caregivers had provided care for less than 1 year. Unpaid care was provided 7 days a week by 80% of the caregivers. In an average day, caregivers spent 4 hours providing care.

Competing Demands on the Caregiver

Family needs often conflict with the role of the caregiver. One-quarter of caregiving children and one-third of other caregivers reported children under age 18 in the home. Employment also conflicted with the caregiving role—some care providers had left the labor force. Husbands, wives, and daughters left the labor force more often than sons. Of caregivers who remained employed, 29% rearranged schedules, 21% reduced work hours,

¹ A component of the 1982 National Long-Term Care Survey, sponsored by the Department of Health and Human Services.

and 19% took leave without pay to accommodate their role as caregiver. Wives were more likely than husbands to rearrange schedules; husbands more often than wives worked fewer hours, and daughters were more likely than sons to experience all three types of adjustments in their work patterns.

These competing demands may represent an even greater challenge to future cohorts of caregivers. Due to longer life expectancy and delayed childbearing, an increasing proportion of women will be in the position of providing care to both children under the age of 18 as well as elderly parents. These demographic trends, coupled with the projected increase in labor force participation rates among older women, suggest that future work and family obligations may conflict with caregiving responsibilities to a greater extent than they do today.

Source: Stone, Robyn, Gail Lee Cafferata, and Judith Sangl. [1986]. Caregivers of the Frail Elderly: A National Profile. U.S. Department of Health and Human Services, Public Health Service, National Center for Health Services Research and Health Care Technology Assessment.

New Publications

The following publications are for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. (202) 783-3238:

- **Food Cost Variations: Implications for the Food Stamp Program.** SN001-019-00557-2. February 1988. \$3.00. (68 pp.)

This report examines whether equally needy Food Stamp Program households receive equal benefits by analyzing purchase practices and market basket cost differences across cities and regions.

- **1988 Agricultural Chartbook.** SN001-019-00487-8. April 1988 \$15.00. (119 pp.)

The 1988 chartbook includes over 300 charts covering numerous subjects on the farm, population and rural development, the consumer, food and nutrition programs, U.S. trade and world production, and commodity trends.

Single copies of the following are available free from the Consumer Information Center. Write to S. James, Consumer Information Center-F, P.O. Box 100, Pueblo, CO 81002.

- **Medicare and Prepayment Plans.** 574T. 1988. (8 pp.)

This booklet contains information on joining Health Maintenance or Competitive Medical Plans without giving up medicare benefits, how the plans work, and what the plans cover.

- **Grants for Research and Education in Science and Engineering.** 507T. 1987. (32 pp.)

Included in this booklet are instructions on how to submit scientific and engineering research proposals for National Science Foundation Grants:

- **Antitrust Enforcement and the Consumer.** 595T. 1987. (17 pp.)

An explanation of enforcement of laws governing competition in business and how consumers can benefit is covered in this booklet from the Department of Justice.

Single copies of the following are available from the Consumer Information Center. Write to R. Woods, Consumer Information Center-F, P.O. Box 100, Pueblo, CO 81002:

- **Health Care and Finances: A Guide for Adult Children and Their Parents.** 459T. December 1987. \$0.50. (21 pp.)

This publication is designed to identify some common problems, raise questions, and present possible answers. Includes the types of services that may be available, how to find them, and the extent of assistance provided. A list of other resources to help families make sound decisions is given.

- **Getting Started: Establishing Your Financial Identity.** 453T. 1987. \$0.50. (15 pp.)

Helpful suggestions for those starting college or living on their own for the first time are given in this booklet. Also included are tips on opening bank accounts, establishing credit, and choosing health and life insurance.

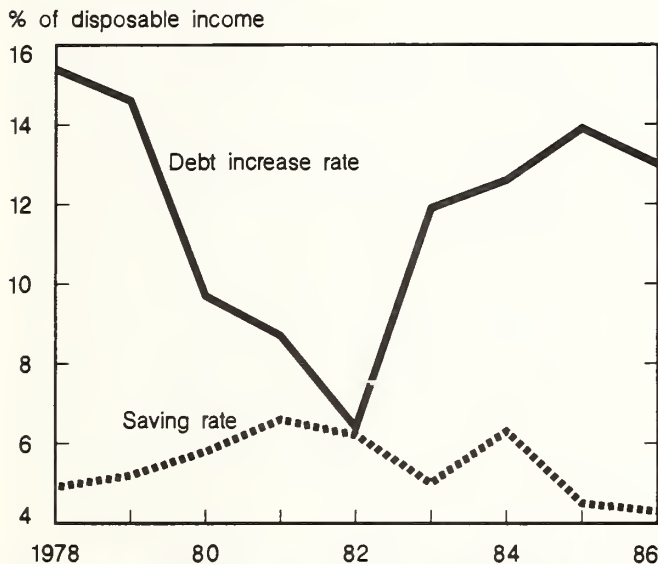
- **Home Equity Credit Lines.** 456T. \$0.50. (3 pp.)

This fact sheet gives information for the homeowner on home equity credit. (With this type of loan, you borrow a certain amount of money from the equity you've built up in your home, and then pay it back in monthly installments.) Included is a checklist which can be used to compare loan packages from a variety of lenders.

New USDA Charts

Chart 136

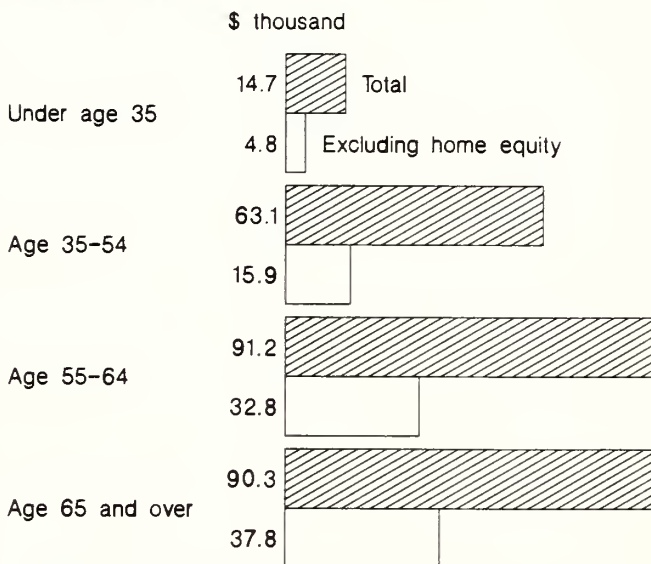
Household Debt and Saving



Debt increase rate equals new net liabilities divided by disposable personal income.
Source: Federal Reserve Board and Bureau of Economic Analysis

Chart 140

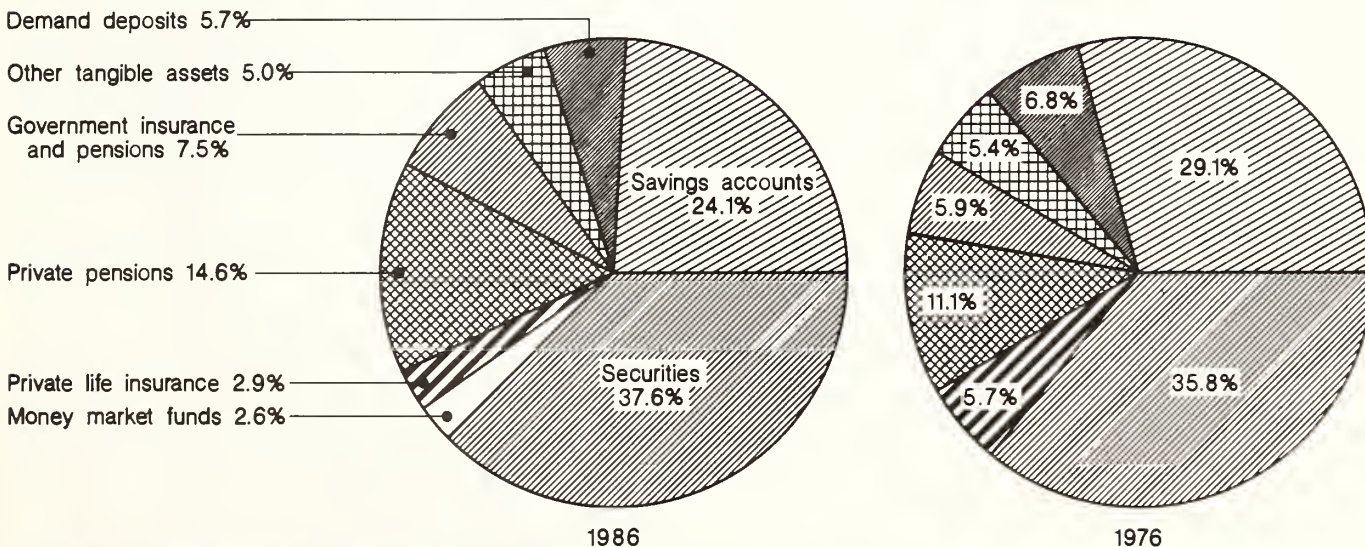
Median Net Worth of Married-Couple Households



1984 data. Source: Bureau of the Census.

Chart 135

Distribution of Financial Assets



Other tangible assets include residential and nonresidential fixed assets, consumer durables, and inventories. 1976 money market funds were less than 1 percent.
Source: Federal Reserve Board.

Cost of Food at Home

Cost of food at home estimated for food plans at 4 cost levels, June 1988, U.S. average

Sex-age group	Cost for 1 week				Cost for 1 month			
	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES								
Family of 2:								
20-50 years	\$41.20	\$52.10	\$64.60	\$80.40	\$178.60	\$226.10	\$279.90	\$348.30
51 years and over	39.00	50.20	62.00	74.40	169.50	217.10	268.70	322.40
Family of 4:								
Couple, 20-50 years and children--								
1-2 and 3-5 years	60.00	74.90	91.80	113.00	259.80	324.90	398.10	489.90
6-8 and 9-11 years	68.80	88.20	110.70	133.60	298.10	382.00	479.40	578.60
INDIVIDUALS								
Child:								
1-2 years	10.80	13.10	15.30	18.50	46.80	57.00	66.40	80.40
3-5 years	11.70	14.40	17.80	21.40	50.60	62.40	77.20	92.90
6-8 years	14.30	19.10	24.00	28.00	62.00	82.60	103.80	121.30
9-11 years	17.00	21.70	28.00	32.50	73.70	93.90	121.10	140.70
Male:								
12-14 years	17.70	24.60	30.80	36.20	76.80	106.60	133.50	156.70
15-19 years	18.40	25.50	31.60	36.80	79.80	110.30	137.10	159.30
20-50 years	19.70	25.20	31.70	38.40	85.40	109.30	137.40	166.40
51 years and over	17.90	24.00	29.60	35.60	77.80	104.00	128.40	154.30
Female:								
12-19 years	17.70	21.30	25.90	31.30	76.70	92.10	112.00	135.80
20-50 years	17.80	22.20	27.00	34.70	77.00	96.20	117.10	150.20
51 years and over	17.60	21.60	26.80	32.00	76.30	93.40	115.90	138.80

Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for the thrifty food plan were computed from quantities of foods published in Family Economics Review, 1984(1). Estimates for the other plans were computed from quantities of foods published in Family Economics Review, 1983(2). The costs of the food plans are estimated by updating prices paid by households surveyed in 1977-78 in USDA's Nationwide Food Consumption Survey. USDA updates these survey prices using information from the Bureau of Labor Statistics, CPI Detailed Report, table 3, to estimate the costs for the food plans.

10 percent added for family size adjustment. See footnote 3.

The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5- or 6-person--subtract 5 percent; 7- or more-person--subtract 10 percent.

Index of Major Articles Printed in Family Economics Review, 1979-88¹

Author	Title	Issue
CHILD CARE		
Edwards, C.S.	Users' Guide to USDA Estimates of the Cost of Raising A Child	<i>Summer 1979</i>
Edwards, C.S.	Users' Guide to USDA Estimates of the Cost of Raising A Child: Part II	<i>Winter 1981</i>
Edwards, C.S., and Beckham, L.J.	Child Cost User Data Updated to 1983	<i>1984 (3)</i>
Edwards, C.S., and Gray, B.	The Cost of Raising Farm Children	<i>Winter 1979</i>
Epstein, M.F.	Children Living in One-Parent Families	<i>Winter 1979</i>
Epstein, M.F., and Jennings, C.L.	Child Care: Arrangements and Costs	<i>Fall 1979</i>
Jennings, C.L.	Children in the United States	<i>Winter 1979</i>
Lamar, C.G.	Quality Child Care and the Informed Parent	<i>Fall 1979</i>
Pine, B.A.	Family Day Care Pilot Program of Cooperative Extension, New York State	<i>Fall 1979</i>
Schwenk, F.N.	Child Care Arrangements and Expenditures	<i>1986 (4)</i>
Shoffner, S.M.	Child Care in Rural Areas: Needs, Attitudes, and Preferences	<i>Fall 1979</i>
CLOTHING		
Courtless, J.C.	Clothing and Textiles: Supplies, Prices, and Outlook for 1980	<i>Spring 1980</i>
Courtless, J.C.	Clothing and Textiles: Supplies, Prices, and Outlook for 1981	<i>Spring 1981</i>
Courtless, J.C.	Clothing and Textiles: Supplies, Prices, and Outlook for 1982	<i>Spring 1982</i>
Courtless, J.C.	Cost of Doing Laundry	<i>Winter 1982</i>
Courtless, J.C.	Home Sewing Trends	<i>1982 (4)</i>
Courtless, J.C.	Recent Trends in Clothing and Textiles	<i>1983 (2)</i>
Courtless, J.C.	Recent Trends in Clothing and Textiles	<i>1984 (2)</i>
Courtless, J.C.	Recent Trends in Clothing and Textiles	<i>1985 (2)</i>
Courtless, J.C.	Recent Trends in Clothing and Textiles	<i>1986 (2)</i>
Courtless, J.C.	Recent Trends in Clothing and Textiles	<i>1987 (1)</i>
Courtless, J.C.	Recent Trends in Clothing and Textiles	<i>1988 (2)</i>
Courtless, J.C.	Textile Fibers in Clothing, Home Furnishings, and Other Consumer Products	<i>1983 (4)</i>
Courtless, J.C.	Time Spent in Sewing by Employed Women	<i>1985 (4)</i>
Dardis, R.	International Textile Trade: The Consumer's Stake	<i>1987 (2)</i>
Dickerson, K.G.	Consumer Perspectives: Imported vs. U.S.-Made Apparel	<i>1983 (3)</i>
Polyzou, A.	Energy Consumption for Textiles and Apparel	<i>Spring 1979</i>
Polyzou, A., et al.	Clothing Budgets for Farm Children, 1977	<i>Winter 1979</i>
Polyzou, A., et al.	Clothing Budgets for Farm Adults, 1978	<i>Summer 1979</i>

¹ Some articles may be listed under more than one category.

Note: This index covers the last 10 years—from Winter 1979 to Vol. 1 No. 3. Articles appearing in issues Winter 1979 through Spring 1982 are cited by season and year. Year and issue number are used for the 1982 No. 3 to 1988 No. 2 issues. Beginning with this issue, Vol. 1 No. 3, the volume and issue number are used. Only those articles that have been authored are included in this index. A complete list of articles and abstracts is included in the annual index.

ELDERLY

Hefferan, C.	Retirement Income	Winter 1981
Ingwersen, L.W., and Hama, M.Y.	Value of Food Used in Households with Elderly Members	1985 (4)
Pitts, J.M.	Economic Well-Being of the Elderly: Recommendations from the White House Conference on Aging	1982 (4)
Pitts, J.M.	Housing Alternatives for the Elderly	1986 (3)
Pitts, J.M.	Planning for Tomorrow's Elderly	1986 (4)
Rizek, R.L., and Peterkin, B.B.	Food Costs and Practices of Households with Working Women and Elderly Persons, Spring-Summer 1977	Winter 1980
Ruffin, M.D.	Contribution of the Family to the Economic Support of the Elderly	1984 (4)
Ryscavage, P.	Income Trends of the Young and the Elderly	1987 (2)
Schwenk, F.N.	Pensions	Spring 1981

EMPLOYMENT

Courtless, J.C.	Work-Related Transportation Costs	Winter 1981
Hefferan, C.	Employee Benefits	1985 (1)
Hefferan, C.	Unemployment: The Effects on Family Income and Expenditures	1983 (1)
Marano, C.E., et al.	Displaced Homemakers: Critical Needs and Trends	Sum/Fall 1980

ENERGY

Meeks, C.B.	Household Energy Use and Conservation	Summer 1981
Polyzou, A.	Energy Consumption for Textiles and Apparel	Spring 1979
Ruffin, M.D.	Energy-Saving Home Improvements	Winter 1980
Thompson, W.	Residential Energy Consumption Surveys	Summer 1981

FAMILY LIVING

Ferber, M.A., and Birnbaum, B.G.	Economics of the Family: Who Maximizes What?	Sum/Fall 1980
Goebel, K.P.	Time Use and Family Life	Summer 1981
Jennings, C.L.	WHCF Recommendations Relating to the Economic Well-Being of Families	Winter 1981
Johnson, A. S.	Family Support Seminar	Spring 1982
Johnson, B.L.	Single-Parent Families	Sum/Fall 1980
Kobbe, A.M.	Research Report--Major Concerns of Families	1985 (3)
O'Neill, J.A.	Economic Outlook for Families	1985 (2)
Payton, I.S.	Single-Parent Households: An Alternative Approach	Winter 1982
Schwenk, F.N.	Developments in Consumer Product Standards	1984 (3)
Scholl, K.K.	The Family in the Eighties' Economy	Spring 1982

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Kalbacher, J.Z.	Women Farm Operators	1983 (4)
Scholl, K.K.	Classification of Women as Farmers: Economic Implications	1983 (4)
Scholl, K.K.	Farm Families: Economic Outlook for 1986	1986 (2)
Scholl, K.K.	Farm Operator Households Receiving Social Security Income, 1979	1984 (4)

Scholl, K.K.	Farm Women's Triad of Roles	1983 (1)
Scholl, K.K.	Female Farm Landlords, 1979	1985 (3)
Scholl, K.K.	Household and Farm Task Participation of Women	1982 (3)
Scholl, K.K.	Income and Poverty Rates: Farm and Nonfarm Residence	1983 (1)
Scholl, K.K.	The Social Security Program of Self-Employed Farm Operator Families	1984 (3)

FINANCES

Craig, K.E.	Family Financial Management Curriculum Sourcebook	1983 (2)
Dunkelberg, W.C.	Bankruptcy in the United States	Spring 1982
Epstein, M.F.	Credit Use in the Purchase of Household Appliances	Fall 1981
Evans, R.B.	The Outlook for Consumer Credit	Spring 1981
Hefferan, C., and Pitts, J.M.	Consumer Spending and Saving: The Outlook for 1988	1988 (2)
Hefferan, C.	Economic Outlook for Families — 1984	1984 (2)
Hefferan, C.	Economic Outlook for Families — 1986	1986 (2)
Hefferan, C.	Family Budget Guidelines	1987 (4)
Hefferan, C.	Family Financial Planning — Research	Spring 1981
Hefferan, C.	Family Savings: Another Victim of Inflation?	Sum/Fall 1980
Hefferan, C.	Federal Income Taxation and the Two-Earner Couple	Winter 1982
Hefferan, C.	Household Wealth, 1962-81	1983 (3)
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Hogan, M.J.	Family Adjustments in Financial Management	Sum/Fall 1980
Jennings, C.L.	EFTS-Electronic Funds Transfer Systems	Winter 1980
Pitts, J.M.	Terms, Concepts, and Acronyms in Family Financial Planning	1986 (1)
Scholl, K.K.	Contributions and Gifts of Cash	1986 (4)
Schwenk, F.N.	Reassessing Life Insurance Needs	1985 (1)
Schwenk, N.E.	Household Expenditures for Education and Reading	Vol. 1 No. 3
Schwenk, N.E.	Measurements of Family Income	1985 (3)
Shaber, S.	Consumer Spending: Recovery and Beyond	1984 (2)
Talbot, M.N.	Household Transportation Expenditures	Vol. 1 No. 3

Poverty

McNeil, J.M.	In-Kind Income — Effect on Poverty	1985 (2)
Weinberg, D.H.	Measuring Poverty	1985 (2)

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Costs

Cleveland, L.E., and Peterkin, B.B.	USDA 1983 Family Food Plans	1983 (2)
Farrell, K.R.	Food Prices in 1980	Spring 1980
Ingwersen, L.W., and Hama, M.Y.	Value of Food used in Households with Elderly Members	1985 (4)
Isom, P.	Frozen-Prepared Plate Dinners and Entrees — Cost vs. Convenience	Summer 1979
Jansen, L.	Milk and Milk Products — Cost and Nutritional Return	Sum/Fall 1980
Junker, C.C.	Cost of Meats and Meat Alternates	Winter 1982

Kerr, R.L., et al.	USDA 1983 Thrifty Food Plan	1984 (1)
Kinsey, J.	Impacts of Imports on Food Prices and Choices	1987 (2)
Kolodinsky, J.	Consumer Reactions to Price Savings on Food	1988 (2)
Lippert, A., and Love, D.O.	Family Expenditures for Food Away From Home and Prepared Foods	1986 (3)
Odland, D.D.	Bulk Foods—Cost and Other Considerations	1986 (1)
Odland, D.D., and Behlen, P.M.	Calcium: Food Sources and Costs	1987 (3)
Odland, D.D., et al..	Convenience and the Cost of the "Newer" Frozen Plate Dinners and Entrees	1986 (1)
Penn, J.B.	The Food Price Outlook for 1979	Spring 1979
Peterkin, B.B.	Making Food Dollars Count	1983 (4)
Peterkin, B.B., and Hama, M.Y.	Food Shopping Skills of the Rich and the Poor	1983 (3)
Ritzmann, L.J.	Household Size and Prices Paid for Food	1982 (4)
Rizek, R.L.,et al.	Food Costs and Practices of Households with Working Women and Elderly Persons, Spring, Summer 1977	Winter 1980
Love, D.O., et al..	Food Costs of U.S. Households, Spring 1977	Fall 1979

Diets

Behlen, P.M., and Cronin, F.J.	Dietary Recommendations for Healthy Americans Summarized	1985 (3)
Evans, M.D., and Cronin, F.J.	Diets of School-Age Children and Teenagers	1986 (3)
Jones, J.L., and Weimer, J.	Health-Related Food Choices	Summer 1981
Junker, C.C.	Children's Diets	Winter 1979
Peterkin, B.B., and Kerr, R.L.	Food Stamp Allotment and Diets of U.S. Households	Winter 1982
Shaw, A.M.,et al..	Better Eating for Better Health	1984 (4)
Tippett, K.S., and Riddick, H.A.	Diets of American Women by Income, Spring 1977 and Spring 1985	1987 (1)
Tong, A.	Food Habits of Vietnamese Immigrants	1986 (2)

Nutrients

Cronin, F.J.	Nutrient Levels and Food Used by Households, 1977 and 1965	Spring 1980
Enns, C.W., and Guenther, P.M.	Women's Food and Nutrient Intakes Away From Home, 1985	1988 (1)
Guenther, P.M., and Chandler, C.A.	Nutrients in Foods at Home and Away	Summer 1981
Pao, E.M.	Nutrient Consumption Patterns of Individuals, 1977 and 1965	Spring 1980
Pao, E.M., Mickle, S.J.	Nutrients from Meals and Snacks Consumed by Individuals	Summer 1981
Peterkin, B.B., and Rizek, R.L.	National Nutrition Monitoring System	1984 (4)
Posati, L.P., and Rizek, R.L.	Nutrient Data Base for Continuing Food Intake Survey	1985 (3)
Zellner, J.A., and Morrison, R.M.	Economic and Regulatory Policies: Implications for Nutrition	1988 (1)

General

Hama, M.Y.	Household Food Consumption, 1977 and 1965	<i>Spring 1980</i>
Hama, M.Y., and Riddick, H.A.	Nationwide Food Consumption Survey 1987	<i>1988 (2)</i>
Hegsted, D.M.	Nationwide Food Consumption Survey – Implications	<i>Spring 1980</i>
Lamm, R.M., and Wescott, P.C.	Food Outlook	<i>Spring 1982</i>
Morgan, K.J.	Socioeconomic Factors and Food Usage Patterns	<i>1988 (1)</i>
Rizek, R.L., and Posati, L.P.	Continuing Survey of Food Intake by Individuals	<i>1985 (1)</i>
Westcott, P.C.	The Outlook for Food	<i>Spring 1981</i>

HOUSEHOLD PRODUCTION

Hefferan, C.	New Methods for Studying Household Production	<i>1982 (3)</i>
Hefferan, C.	Workload of Married Women	<i>1982 (3)</i>
Peskin, J.	Measuring Household Production for the GNP	<i>1982 (3)</i>
Robinson, J.P.	Of Time, Dual Careers, and Household Productivity	<i>1982 (3)</i>

HOUSING

Bird, R.	Status of Housing in Nonmetropolitan Areas	<i>Spring 1979</i>
Edwards, C.S.	Alternative Mortgage Instruments	<i>1982 (4)</i>
Edwards, C.S., and Payton, I.S.	Creative Residential Finance	<i>1984 (1)</i>
Elwell, L.D.	Farmers Home Administration Rural Housing Programs	<i>Spring 1979</i>
Meeks, C.B.	Housing Quality and Affordability	<i>1984 (2)</i>
Pitts, J.M.	Housing Alternatives for the Elderly	<i>1986 (3)</i>
Riordan, D.P.	The Outlook for Housing and Mortgage Markets	<i>Spring 1982</i>
Schwenk, N.E.	Housing Expenditures	<i>1988 (1)</i>
Schwenk, N.E.	Housing Situation of American Children	<i>1987 (3)</i>
Sheehan, R.J.	The Outlook for Housing in 1979	<i>Spring 1979</i>
Sheehan, R.J.	The Outlook for Housing	<i>Spring 1981</i>
Summers, C.E.	Adjustable Rate Mortgages: Consumer Information Needs	<i>1985 (4)</i>
Treadway, P.	Outlook for Housing	<i>Spring 1980</i>
Young, A.F., and Devaney, F.J.	Urban and Rural Housing Characteristics	<i>1984 (2)</i>

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Garner, T.I.	Methodological Issues for Today and Tomorrow	<i>Vol. 1 No. 3</i>
Goldfeld, S.M.	The Outlook in General	<i>Spring 1981</i>
Hefferan, C., Tippet, K.S., and Pitts, J.M.	Interpreting Statistical Data in Family Economics	<i>1983 (1)</i>
Jacobs, E.E.	The Continuing Consumer Expenditure Survey	<i>Spring 1982</i>
Pitts, J.M.	Federal Consumer and Educational Publications Relating to Family Economics	<i>1987 (4)</i>
Schwenk, F.N.	Federal Sources of Family Economic Data	<i>1986 (1)</i>
Schwenk, F.N.	Two Measures of Inflation: The Consumer Price Index and the Implicit Price Deflator	<i>Winter 1981</i>

Consumer Prices

Consumer Price Index for all urban consumers [1982-84 = 100, unless otherwise noted]

Group	Unadjusted indexes			
	June 1988	May 1988	April 1988	June 1987
All items	118.0	117.5	117.1	113.5
Food	117.6	117.0	116.6	113.8
Food at home.....	115.8	115.1	114.6	112.6
Food away from home.....	121.5	121.0	120.7	116.8
Housing	118.6	117.7	117.3	114.3
Shelter.....	126.6	126.2	125.8	120.8
Renters' costs	133.7	133.1	132.9	127.9
Rent, residential	127.3	126.9	126.6	122.3
Homeowners' costs	130.4	129.9	129.4	124.2
Maintenance and repairs.....	114.7	114.3	115.3	111.1
Maintenance and repair services	118.1	117.8	119.4	113.7
Maintenance and repair commodities ..	110.1	109.8	109.7	107.8
Fuel and other utilities	105.9	103.5	102.8	104.9
Fuel oil and other household fuel commodities.....	79.1	80.0	80.2	77.2
Gas (piped) and electricity	107.8	102.6	101.6	108.1
Household furnishings and operation.....	109.6	109.3	109.1	107.1
Housefurnishings	105.3	104.9	104.9	103.5
Housekeeping supplies.....	114.7	114.1	113.8	111.9
Housekeeping services.....	114.8	114.8	114.7	110.5
Apparel and upkeep	114.6	116.3	117.0	109.3
Apparel commodities	112.9	114.8	115.5	107.6
Men's and boys' apparel	112.5	113.6	112.9	109.0
Women's and girls' apparel	114.1	117.3	119.6	107.6
Infants' and toddlers' apparel	116.5	117.7	117.1	110.1
Footwear	109.2	109.7	109.4	105.6
Apparel services	123.1	122.8	122.6	119.5
Transportation	108.5	108.1	107.2	105.4
Private transportation	107.4	107.0	106.0	104.3
New vehicles	116.1	115.9	115.6	114.1
Used cars	117.6	117.0	116.6	114.7
Motor fuel.....	81.4	81.4	79.4	80.8
Maintenance and repairs.....	119.7	119.3	118.8	114.4
Public transportation	123.2	122.4	122.4	120.2
Medical care.....	138.2	137.5	136.9	129.9
Medical care commodities.....	139.4	139.0	138.1	130.8
Medical care services	137.9	137.2	136.6	129.6
Professional services	137.5	136.4	136.0	128.8
Entertainment	120.1	119.7	119.6	114.9
Other goods and services.....	135.5	135.1	134.8	127.2
Personal care.....	119.0	118.7	118.5	114.9
Personal and educational expenses	146.0	145.5	145.2	136.7

Source: U.S. Department of Labor, Bureau of Labor Statistics.

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Highlights

Consumer Expenditure Survey:

Methodology

Education and Reading

Transportation